

ALBA

Model 44

General Description: Six-transistor (plus two crystal diodes), two-waveband portable receiver with provision for external aerial and using three alloy-diffusion transistors.

Power Supply: 9-volt, centre-tapped, battery. No-signal consumption under 12 mA.

Transistors: (T₁) AF117 (OC170); (T₂) AF117 (OC170); (T₃) AF117 (OC170); (T₄) OC81D; (T₅, 6) OC81. Diodes (D₁) OA79 (A.G.C. clamp); (D₂) OA70.

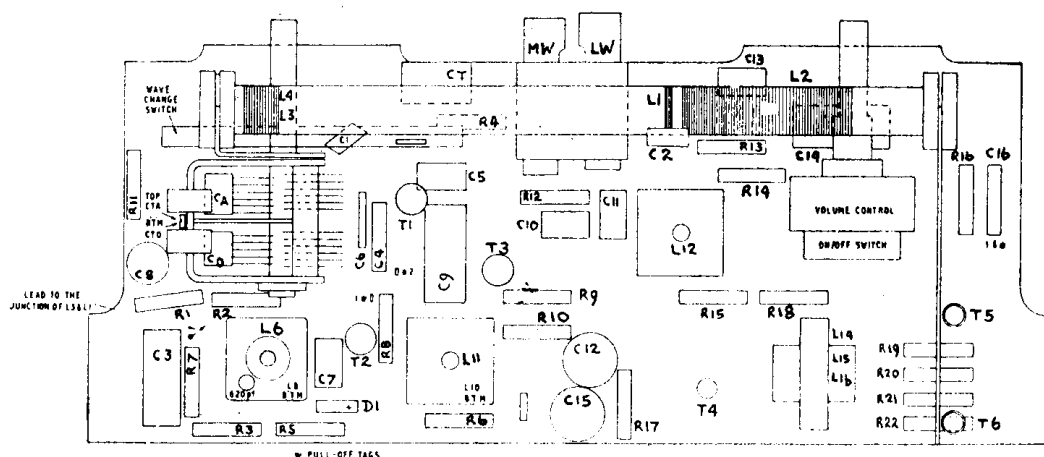
Modifications: On later models R₁₉, R₂₁ have been changed from 2.7k to 2.2k.

Alignment Procedure: Chassis panel must be removed from cabinet: gently pull off both knobs and tuning pointer. Lay set face downwards, and remove back. Withdraw battery and stand it beside cabinet; remove two screws from lower corners of chassis panel and gently withdraw panel. This may now be inverted and laid across cabinet. Disconnect loudspeaker by means of pull-off tag. This will leave "spill" on panel to which the output meter can be connected; other side of meter to one end of lead between loudspeaker and battery plug. Output meter impedance 15 ohms.

I.F.: Inject a 470-kc/s. signal via 0.1 μ F. to base of T₁ (pink lead from rod aerial to wave-change switch). Close gang, switch on and depress M.W. button. Adjust L₁₂ (3rd I.F.T.); L₁₀-11 (top and bottom 2nd I.F.T.); L₈ (bottom 1st I.F.T.) in that order. Repeat until no further improvement possible.

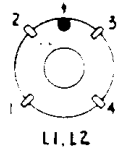
R.F.: Prepare calibration scale for tuning gang. Connect generator via a 10k resistor to aerial socket. Adjust L₆ (top) and L₂ at 600 kc/s. Adjust C₁₀ and C₁₄ at 1300 kc/s. Repeat sequence until no further improvement possible. Set to 200 kc/s. and adjust C_t for maximum output of B.B.C. "Light" programme. Inject 213 kc/s., tune to signal and adjust L₄.

Note that adjustment to L₂ or L₄ should not be necessary unless aerial coil assembly has been changed or normal sensitivity cannot be achieved. If original seal is broken reseal with coil varnish.

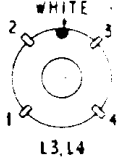


VIEW OF AERIAL COIL
FROM TAG END

CODE SPOT
RED OR GREEN



CODE SPOT
WHITE



SI M L53

54 L M 55

C1 35p

L4

C2 2300p

L2

C3 0.1

L1

C4 1000p

R2 6.8K EXT AER

C5 0.01

R4 1K

C6 150p

C7 0.05

R8 680

C9 0.25

R10 4.7K

C11 0.05

R12 1K

C12 100

R15 27K

R16 8.2K

C15 100

R17 330

R22 25

C16 200p

R19 2.7K

R20 25

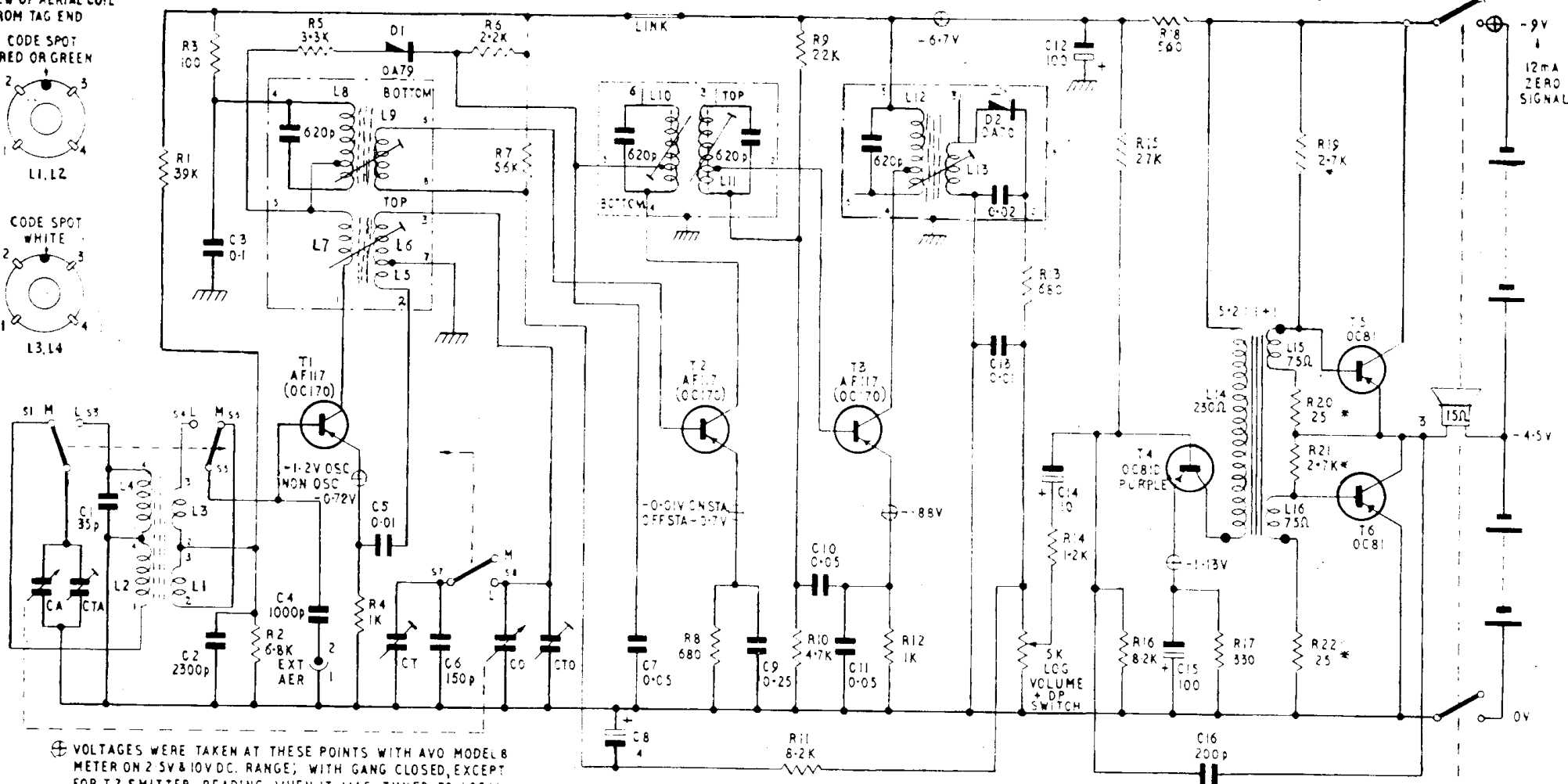
R21 2.7K

OSCILLATOR AND 1st IFT

2nd IFT

3rd IFT

DRIVER TRANS

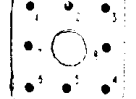


VOLTAGES WERE TAKEN AT THESE POINTS WITH AVO MODEL 8 METER ON 2.5V & 10V DC. RANGE; WITH GANG CLOSED, EXCEPT FOR T2 EMITTER READING, WHEN IT WAS TUNED TO LOCAL HOME STATION. IF FREQ. = 470 Kc/s.

GANGED $\begin{cases} C_A = 170 \text{ pf MAX} \\ C_O = 120 \text{ pf MAX} \\ C_{TA} = C_{TO} = 20 \text{ pf MAX} \\ C_T = 40-110 \text{ pf} \end{cases}$

RESISTORS MARKED
* $\pm 5\%$ TOL
OTHERS $\pm 10\%$ TOL

YELLOW SPOT



OSC & 1st IFT

BOTTOM VIEW OF COILS

ORANGE SPOT



2nd IFT

BLUE SPOT



3rd IFT

ON L14, 15 & 16, • DENOTES
START OF WINDING

GANGED
TO VOL. CONTROL

ALBA

CIRCUIT DIAGRAM—ALBA MODEL 44